PCV4

EXPOSURE OF PRESCRIBED CHINESE MEDICATIONS AMONG ELDERLY PATIENTS TAKING DIGOXIN

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OBJECTIVES: Those elderly patients are vulnerable to digoxin toxicity due to their diminished organ functions and tendency to occur drug interactions with digoxin. The aim of this research was to describe the exposure patterns of prescribed Chinese Medications (CM) and its associated factors among elderly patients taking digoxin. **METHODS:** A retrospective population-based cohort study was conducted Longitudinal Health Insurance databases in Taiwan. Those elderly patients being prescribed with digoxin in outpatient settings during 2006 were evaluated for their concurrent use of prescribed CM (prevalence, incidence [excluding concurrent use of CM six month prior], duration). After 1 to 4 randomly matching for those CM-digoxin users and digoxin-along users, the multivariate logistic regression was performed to explore factors associated with concomitant CM-digoxin use and exposure to specific potential interactions. **RESULTS:** Of 185,076 elderly in 2006 in Taiwan, 6,364 (3.4%) used digoxin and 754 (0.4%) were CM-digoxin users. Within one-year following-up, the prevalence and incidence of concomitant CM use among digoxin elderly users were 13.4% and 7.1%, respectively. The average durations were 190.7±136.7 days for digoxin elderly users, 30.8±49.6 days for prevalent CM-digoxin users, and 17.25±23.9 days for incident CM-digoxin users. While other factors were not statistically significant associated with incident CM-digoxin use, patients with coronary heart diseases (CAD) increased 218% likelihood of incident CM-digoxin use. Those with CAD and BPH and used more health care resources tended to use specific CM with digoxin. CONCLUSIONS: With substantial amount of CM-digoxin users among the elderly, further study is needed to explore the impact of patient outcomes on concurrent use of CM with digoxin.

PCV5

EPIDEMIOLOGY AND MORTALITY OF VENOUS THROMBOEMBOLISM ACROSS PATIENT POPULATIONS: A SYSTEMATIC LITERATURE REVIEW

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OBJECTIVES: Venous thromboembolism (VTE) is a pathological condition inclusive of deep vein thrombosis (DVT) and pulmonary embolism (PE). A systematic review was conducted to summarize the global epidemiological burden and mortality of primary/recurrent VTE events across patient populations. **METHODS:** Eligible studies (both full publications and abstracts) were identified from an exhaustive, systematic database review. Outcomes of interest included incidence/prevalence of primary/recurrent VTE, mortality and associated risk factors. **RESULTS:** The estimated annual incidence rate of DVT and PE in the US, Europe and Asia was reported at 0.21-1.48 per 1,000 person-years, with a prevalence of 0.2-0.66%. In the US, prevalence is estimated to increase from the current estimate of 0.42% to 0.57% by 2050, driven by population growth and increased detection. Although there was a paucity of Asian data, published results suggest a lower prevalence compared with Western countries. Risk factors for VTE include increased age, male sex, ethnicity, surgery, cancer, initial event type and pharmacology. VTE recurrence is dependent on both the initial event type and/or the presence of VTE risk factors. The risk of recurrence peaks 6 to 12 months following the primary event, with 5-year cumulative recurrence estimated at ~28%. VTE-related mortality in the US and Europe was reported to occur in up to 370,000 patients annually and is estimated to account for 10% of all in-hospital deaths. The level of PE-related mortality was up to 60%, was dependent on underlying risk factors, and was markedly higher compared with DVT-related mortality. **CONCLUSIONS:** VTE is particularly prevalent in the elderly, active cancer and surgical populations with major additional risk factors including sex and ethnicity. VTE carries significant levels of mortality with the highest levels reported in care based versus community setting. Increased population growth and aging population demographic coupled with improved detection will result in an increasing health care burden.

PCV6

ASSESSMENT OF DRUG RELATED PROBLEMS (DRP) IN PRESCRIPTIONS RECEIVED BY PATIENTS SUFFERING FROM CHRONIC DISEASES DWELLING IN A SOUTH INDIAN RURAL COMMUNITY

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OBJECTIVES: To assess the incidence, prevalence and cost implications of drug related problems in patients with chronic diseases dwelling in a local community **METHODS:** The present study was a prospective observational study conducted in a South Indian city residential area. Institutional ethics committee has approved the study. The research pharmacist recorded the details of patients with chronic diseases through house visits and reviewed the prescriptions of the enrolled patients for drug related problems with their consent. Cipolle's classification was used to assess the type of DRPs. Prevalence, severity level and significance of DRP's was also assessed and net societal cost burden due to the DRPs was also calculated. **RESULTS:** During the six months study period, 480 houses were surveyed and identified 190 patients (Male: 80 and Female:110) with chronic diseases. A total of 80 DRPs were identified in the prescriptions with an incidence rate of 42%. Types of DRP were Medication errors/ non compliance (17), untreated indications (15) and Drug interactions (14) and ADRs (8) were the most commonly observed DRPs. As per the severity, 9 DRPs were major, 32 DRPs were moderate and 39 DRP were minor and clinically non significant. The net societal cost burden due to DRPs was calculated as Rs.72,04,000/-. **CONCLUSIONS:** The study concludes that, incidence of DRPs in patients with chronic diseases is about 42% and the net societal cost burden due to DRPs was found Rs.72,04,000.00.

PCV7

DISTRIBUTION OF LEFT VENTRICLE EJECTION FRACTION (LVEF), PATIENT ATTRIBUTES, AND MEDICATION USE IN HEART FAILURE PATIENTS IN A US ELECTRONIC MEDICAL RECORD DATABASE

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OBJECTIVES: To compare real-world characteristics and medication use in heart failure (HF) patients with REF, Reduced Ejection Fraction (EF <45%) versus PEF, Preserved Ejection Fraction (EF ≥45%). **METHODS:** Using the General Electric, electronic medical record database (GE-EMR), patients with a diagnosis of congestive heart failure (CHF) prior to the index data, which was defined as the first date of ejection fraction test (index date) between January 1, 2005 and December 31, 2009, were identified. Additional inclusion criteria include age ≥18 years and availability of 12 months pre- and post- index date data. Patient demographics, clinical profile, and medication use patterns in the 12 months post-index period were compared between the patients with HF- REF and HF-PEF. Bivariate analyses were conducted to determine differences between groups. **RESULTS:** Of 15,457 patients who met inclusion criteria, 9,884 (64%) had HF-PEF. PEF patients were older (71.4 vs. 69.1 years; p<0.0001), more likely to be female (55.5% vs. 32.7%; p<0.0001), obese (2.7% vs. 1.4%; p=0.0009) and diagnosed with hypertension (53.3% vs. 42.7%; p=0.0013), diabetes (30.0% vs. 27.8%; p=0.04), atrial fibrillation (25.2% vs. 20.5%; p<0.0001), lipid disorders (47.3% vs. 43.8%; p=0.0079), and other cardiovascular disease (13.3% vs. 11.7%;p=0.04). Compared to REF, PEF patients are less likely to be treated with ACEi (27.9% vs. 40.2%; p<0.0001), loop diuretics (46.0% vs. 51.8%; p<0.0001), alpha-beta blockers (13.7 vs. 41.1 %; p<0.0001) and Spironolactone (7.40 vs. 16.4%; p<0.0001) while they are more likely to be treated with calcium channel blockers (21.8% vs. 12.7%; p<0.0001). **CONCLUSIONS:** Compared to patients with REF, PEF patients are more likely to be older and have cardiovascular/metabolic comorbid conditions. Medication use patterns suggest that compared to REF patients, PEF patients are less likely to be treated with medications with HF indications and more likely to be treated to control their underlying hypertension.

PCV8

DOES ATRIAL FIBRILLATION CONFER GREATER RISK FOR ACUTE CORONARY SYNDROME?

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OBJECTIVES: In large observational studies, eight to 12% of patients with acute coronary syndromes (ACS) have prevalent atrial fibrillation (AF). However, the determinants of subsequent ACS development in the patient population with incident AF have not been well described. We hypothesized that risk factors present at the onset of AF might identify individuals at increased risk for ACS over the following three years. **METHODS:** The 5% Medicare database was used to identify 18,445 patients (no ESRD, age 65+) who had new-onset AF in 2006 and no AF or ACS in the year prior. Medicare claims were used to identify patients hospitalized with any acute myocardial infarction (AMI, ICD-9-CM diagnosis code 410, 410.X, 410.X0, or 410.X1) and unstable angina (code 411). Cumulative incidence was calculated for the competing risks of ACS and death. **RESULTS:** Patients who had incident AF (n=18,445) in 2006 and no ACS in the previous 12 months had multiple comorbidities. The most prevalent comorbidities were hypertension (67%), coronary artery disease (33%), diabetes mellitus (26%), dysrhythmia (26%), dyslipidemia (24%), other cardiovascular disease (23%), heart failure (21%), chronic obstructive pulmonary disease (18%), and cerebrovascular accident/TIA (15%). Overall, 8% of new-onset AF patients experienced ACS within three years. The cumulative risk of developing ACS was higher in patients with comorbidities. For example, 6% of patients with either diabetes, HF or CAD developed ACS within one year; this rate increased to 11% by three years. The risk of developing ACS at three years increased by 5% relative to year one. **CONCLUSIONS:** Patients with new-onset AF are at risk for atherothrombotic adverse outcomes such as ACS in addition to their recognized increased risk for thromboembolic stroke. Approximately one out of every 12 patients (8%) with newly diagnosed AF developed ACS within three years; this risk was substantially increased by comorbid diabetes, heart failure, or coronary disease.

PCV9

DIABETES AND SEVERITY OF CORONARY ARTERY DISEASE: ASSESSMENT OF CLINICAL, EPIDEMIOLOGIC, AND ANGIOGRAPHIC CHARACTERISTICS

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OBJECTIVES: Evaluate and compare clinical characteristics, risk factors, and disease severity (on angiographic findings) among diabetic and non-diabetic patients with coronary artery disease (CAD). **METHODS:** Observational study; consecutive patients admitted in ICU at tertiary care hospital, underwent coronary angiography (CAG) and diagnosed as CAD using standard definitions (acute coronary syndrome [ACS] i.e. myocardial infarction [MI], or unstable angina [UA]; or chronic stable angina [CSA]). The data included demographic information, risk factors for CAD, and angiographic findings. The linear stepwise regression was used to assess predictor of severity (more sever [double vessel disease, DVD or triple vessel disease, TVD] versus less sever [minimal/non-critical disease or single vessel disease, SVD]) of CAD. The independent variables